

**Claims.**

1. A microsilica with pozzolanic activity that contains at least 85% in weight of silica with respect to the total weight of microsilica, characterized because the silica contains 55 to 90% in weight of cristobalite and tridimite with respect to the total weight of silica.
2. The microsilica of claim 1, characterized because the amount of cristobalite and tridimite is 70 to 90% in weight with respect to the total weight of silica.
3. The microsilica of claim 1, characterized because the cristobalite and tridimite have a crystal size of 5 to 12 nm.
4. The microsilica of claim 3, characterized because the cristobalite and tridimite have a crystal size of 6 to 11 nm.
5. The microsilica of claim 1, characterized because has a pozzolanic index from 100 to 125%.
6. The microsilica of claim 5, characterized because has a pozzolanic index from 115% to 125%.
7. The microsilica of claim 1, characterized because has a superficial area of 25,000 m<sup>2</sup>/Kg.
8. The microsilica of claim 1, characterized because has a particle size distribution equal or minor to 40  $\mu$ m at 98%.
9. The microsilica of claim 1, characterized because has a density equal or minor to 2.4 g/cm<sup>3</sup>.
10. The microsilica of the claim 1 to 9, characterized because it includes:

Components	Percentage in weight with respect to the total weight of microsilica (%)	Method
SiO <sub>2</sub>	89.08	ASTM-C114
Al <sub>2</sub> O <sub>3</sub>	1.87	ASTM-C114
Fe <sub>2</sub> O <sub>3</sub>	0.1	ASTM-C114
CaO	3.96	ASTM-C114
MgO	0.88	ASTM-C114
K <sub>2</sub> O	0.06	ASTM-C114
SO <sub>3</sub>	0.35	ASTM-C114
PPI	2.22	ASTM-C114

11. The microsilica of the claim 10, characterized because has a density of  $2.33 \text{ g/cm}^3$ , a mesh fineness of 325 in a 96.7 % and a Blaine value of  $6,536 \text{ g/cm}^2$ .
12. A method for the obtention of microsilica of claim 1 to 11, characterized because the method includes the steps of:
- 5 a) Obtaining siliceous material from natural deposits,
  - b) Selecting those parts of the deposit that contain  $\text{SiO}_2$  in an equal or greater amounts than 85% in weight with respect to the total weight of the material,
  - c) Selecting the parts with a density lower to  $2.4 \text{ g/cm}^3$  from the obtained parts in b),
  - d) Crushing the obtained parts in c) until obtaining a particle size lower than  $1/2''$ ,
  - 10 e) Calcination of the material obtained before at  $590$  to  $620^\circ\text{C}$ , and
  - f) Milling the calcined material until obtaining a mesh particle size of 325 at 96% minimum.
13. The method of claim 12, characterized because the natural deposit is an ignimbrite deposit.
- 15 14. The method of claim 13, characterized because the microsilica has a pozzolanic index from 100 to 125%.
15. The method of claim 14, characterized because the microsilica has a pozzolanic index from 115% to 125%.
16. A method for the obtention of microsilica of claim 1, characterized because the
- 20 method includes the steps of:
- a) Obtaining siliceous material from natural deposits,
  - b) Selecting those parts of the deposit that contain  $\text{SiO}_2$  in an equal or greater amounts than 85% in weight with respect to the total weight of the material,
  - c) Selecting the parts with a density lower to  $2.4 \text{ g/cm}^3$  from the obtained parts in
  - 25 b),
  - d) Crushing the obtained parts in c) until obtaining a particle size lower than  $1/2''$ , and
  - e) Milling the calcined material until obtaining a mesh particle size of 325 at 96% minimum.
- 30 17. The method of claim 16, characterized because the natural deposit is an ignimbrite deposit.
18. The method of claim 17, characterized because the microsilica has a pozzolanic index from 100 to 120%.